

PATENT
Serial No. 09/894,233

Docket No. 1232-4242US3

LISTING OF CLAIMS

Claims 1-34 are pending. Claims 1, 4-8, 11, 12, 17-21, 27 and 31 are amended and new claims 35-46 are added as shown below. The following listing of claims will replace all prior versions and listings of claims in this application.

1. (Currently Amended) A camera apparatus control system comprising:

a camera apparatus capable of being operated via a network in operation which is at least one of panning, tilting and zooming of the camera apparatus; and

a manager, arranged to manage ~~managing means for managing~~ the operation on the basis of first and second management information stored in a table where the first management information indicates limitation information relating to the operation for each user and the second management information indicates whether or not the camera apparatus is operated by a user,

wherein said manager ~~managing means~~ permits a user, who is not limited from performing operation via the network by the first management information, to operate the camera apparatus and receive a current image acquired by the camera apparatus if the second management information indicates that the camera apparatus is not being operated by another user,

and said manager ~~managing means~~ prohibits the user to operate the camera apparatus, and permits the user to have access to the camera apparatus for receiving a current image acquired by the camera apparatus if the second management information indicates that the camera apparatus is operated via the network by another user.

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2. (Original) The system according to claim 1, wherein one of a first mode in which all operations of said camera apparatus is permitted, a second mode in which all the operations are inhibited, and a third mode in which the operations are permitted within a predetermined range can be set by the first management information for each user.

3. (Original) The system according to claim 2, wherein a plurality of different operation ranges can be set in the third mode.

4. (Currently Amended) The system according to claim 1, further comprising:

a controller, arranged to control means for controlling an action of said camera apparatus and instructing said manager managing means to enter or delete registration of said camera apparatus in or from the first management information; and

an operation limiter arranged to instruct limiting means for instructing said manager managing means to update the limitation information of a camera apparatus to be controlled by said control means controller.

5. (Currently Amended) The system according to claim 4, further comprising an operating section arranged to request means for requesting said control means controller to permit an operation of said camera apparatus via said network in accordance with designation from a user and management by said managing means manager.

6. (Currently Amended) The system according to claim 5, wherein said operating means section can obtain registration information indicating a registration state of a camera apparatus contained in the first management information via said network.

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7. (Currently Amended) The system according to claim 6, wherein said operating section means can instruct said manager managing means via said network to change an access right of a user to a camera apparatus registered in the registration information.

8. (Currently Amended) A control method for a camera apparatus capable of being operated via a network, comprising the steps of:

setting first limitation information for limiting operation via the network of the camera apparatus for each user where the operation is at least one of panning, tilting and zooming of the camera apparatus;

setting second limitation information for indicating whether or not the camera apparatus is operated by a user; and

managing the operation by a user who receives a current image acquired by the camera apparatus on the basis of the set first and second limitation information,

wherein in the managing step, one of the user, who is not limited from performing operation via the network by the first limitation information, can obtain permission to operate the camera apparatus and receive a current image acquired by the camera apparatus if the second limitation information indicates that the camera apparatus is not being operated by another user,

and in the managing step, the one of the user can not obtain permission to operate the camera apparatus and can obtain permission to have access to the camera apparatus for receiving a current image acquired by the camera apparatus if the second management information indicates that the camera apparatus is operated via the network by the another user.

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9. (Original) The method according to claim 8, further comprising the steps of: requesting remote operation of the camera apparatus via the network in accordance with a designation from the user and the management information; and
controlling an action of the camera apparatus on the basis of the requested remote operation and the set first limitation information.

10. (Original) The method according to claim 9, further comprising the steps of:
acquiring the first limitation information for the camera apparatus via the network; and changing the first limitation information of the camera apparatus via the network.

11. (Currently Amended) The system according to claim 1, further comprising:
a controller, arranged to control ~~means for controlling~~ an action of the camera apparatus and instructing said manager ~~managing means~~ to enter or delete registration of said camera apparatus in or from the first management information; and
an operating section, arranged to request ~~means for requesting~~ said controller ~~central means~~ to permit remote operation of the camera apparatus via the network in accordance with a designation from a user and the management information.

12. (Currently Amended) The system according to claim 11, wherein said operating section ~~means~~ is also for obtaining registration information indicating a registration state of a camera apparatus contained in the management information via the network, and for

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instructing said manager managing means via the network to change the first management information of the registered camera apparatus to change the limitation information.

13. (Original) The method according to claim 8, wherein when a plurality of camera apparatuses are connected to a terminal connected to the network, the plurality of camera apparatuses can be grouped and the first limitation information can be set in units of groups.

14. (Original) The method according to claim 8, wherein the first limitation information is set for each user of a terminal connected to the network.

15. (Original) The method according to claim 14, wherein the users can be grouped and the first limitation information can be set in units of groups.

16. (Original) The method according to claim 15, wherein a plurality of access modes having different first limitation information can be set and one of the plurality of access modes can be selected for the user group.

17. (Currently Amended) The system according to claim 1, wherein the first management information contains providing information which indicates permission/prohibition for receiving an image provided by the camera apparatus for each user, and said manager managing means manages sending an image provided by the camera apparatus to the user based on the providing information.

18. (Currently Amended) The system according to claim 1, wherein the first management information contains providing information which indicates permission/prohibition for receiving sound provided by a microphone equipped for the camera apparatus for each user, and said manager managing means manages sending sound provided by the microphone to the user based on the providing information.

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19. (Currently Amended) A control system controlling a camera apparatus which is operated via a network where the operation is at least one of panning, tilting and zooming of the camera apparatus, comprising:

an output section, arranged to output ~~means for outputting~~ a current image acquired by the camera apparatus to at least one user via the network;

a manager arranged to manage ~~managing means for managing~~ first and second management information stored in a table where the first management information defines limits of the operation for each user and the second management information indicates whether or not the camera apparatus is operated by a user; and

a controller, arranged to control ~~means for controlling~~ an action of the camera apparatus within the limits of the operation via the network corresponding to the user who receives the current image and requires the operation,

wherein said controller ~~control means~~ permits a user, who is not limited from performing operation by the first management information, to operate the camera apparatus and receive the current image if the second management information indicates that the camera apparatus is not being operated by another user,

and said controller ~~control means~~ prohibits the user to operate the camera apparatus, and permits the user to have access to the camera apparatus for receiving the current image; if the second management information indicates that the camera apparatus is operated via the network by another user.

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20. (Currently Amended) A control apparatus controlling a camera

comprising:

a controller, arranged to control ~~means for controlling~~ an action of a connected camera based on a received signal which requires operation of the connected camera through a network where the operation is at least one of panning, tilting and zooming, and

a manager, arranged to manage ~~managing means for managing~~ the action of the connected camera based on first and second management information stored in a table where the first management information indicates limitation of the operation for each user and the second management information indicates whether or not the camera apparatus is operated by a user,

wherein said manager ~~managing means~~ permits a user, who is not limited from performing operation via the network by the first management information, to operate the camera apparatus and receive a current image acquired by the camera apparatus if the second management information indicates that the camera apparatus is not being operated by another user,

and said manager ~~managing means~~ prohibits the user to operate the camera apparatus, and permits the user to have access to the camera apparatus for receiving a current image acquired by the camera apparatus if the second management information indicates that the camera apparatus is operated via the network by another user.

21. (Currently Amended) A control apparatus controlling a camera

comprising:

a controller, arranged to control ~~means for controlling~~ an action of a connected

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camera based on a received signal which requires operation of the connected camera through a network, the operation being at least one of panning, tilting and zooming;

an output section, arranged to output means for outputting a current image acquired by the connected camera to at least one user via the network;

a manager, arranged to manage managing means for managing first and second management information stored in a table where the first management information defines limits of the operation for each user and the second management information indicates whether or not the connected camera is operated by a user; and

a controller, arranged to control means for controlling an action of the connected camera within the limits of the operation via the network corresponding to the user who receives the current image and requires the operation,

wherein said controller control means permits a user, who is not limited from performing operation by the first management information, to operate the connected camera and receive the current image if the second management information indicates that the connected camera is not being operated by another user,

and said controller control means prohibits the user to operate the camera, and permits the user to have access to the camera for receiving the current image if the second management information indicates that the camera is operated via the network by another user.

22. (Original) A control method for a camera apparatus which is operated via a network where the operation is at least one of panning, tilting and zooming of the camera apparatus, comprising the step of:

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outputting a current image acquired by the camera apparatus to at least one user via the network;

managing first and second management information stored in a table where the first management information defines limits of the operation for each user and the second management information indicates whether or not the camera apparatus is operated by a user; and

controlling an action of the camera apparatus within the limits of the operation via the network corresponding to the user who receives the current image and requires the operation,

wherein in the controlling step, a user, who is not limited from performing operation by the first management information, is permitted to operate the camera apparatus and receive the current image if the second management information indicates that the camera apparatus is not being operated by another user, and the user is prohibited to operate the camera apparatus, and is permitted to have access to the camera apparatus for receiving the current image if the second management information indicates that the camera apparatus is operated via the network by another user.

23. (Previously Presented) A control apparatus for controlling a camera connected to said apparatus, comprising:

a controller, arranged to control an action of the camera based on a received signal which requires an operation of the camera; and

a memory, arranged to store first management information which indicates limitation of operation of the camera for each user and second information which indicates whether the camera is operated by a user or not,

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wherein said controller permits a user, who is not limited from performing operation via a network by the first management information, to operate the camera and receive a current image acquired by the camera if the second management information indicates that the camera is not being operated by another user, and

said controller prohibits the user to operate the camera, and permits the user to have access to the camera for receiving a current image acquired by the camera if the second management information indicates that the camera is operated via the network by another user.

24. (Previously Presented) The apparatus according to claim 23, wherein the operation of the camera includes at least one of panning, tilting or zooming operation of the camera.

25. (Previously Presented) The apparatus according to claim 23, wherein the first management information includes a range of the operation of the camera for each user.

26. (Previously Presented) The apparatus according to claim 23, wherein the first management information can be set in a unit of groups including plural users.

27. (Currently Amended) A control method of controlling a camera based on first management information which indicates limitation of operation of the camera for each user and second information which indicates whether the camera is operated by a user or not, comprising the steps of:

permitting a user, who is not limited from performing operation via a network by the first management information, to operate the camera and receive a current image acquired by the camera if the second management information indicates that the camera is not being operated by another user, and

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prohibiting the user to operate the camera, and ~~permitting~~ permitting the user to have access to the camera for receiving a current image acquired by the camera if the second management information indicates that the camera is operated via the network by another user.

28. (Previously Presented) The method according to claim 27, wherein the operation of the camera includes at least one of panning, tilting or zooming operation of the camera.

29. (Previously Presented) The method according to claim 27, wherein the first management information includes a range of the operation of the camera for each user.

30. (Previously Presented) The method according to claim 27, wherein the first management information can be set in a unit of groups including plural users.

31. (Currently Amended) A computer program product comprising a computer readable medium storing a computer program code, for a control method of controlling a camera based on first management information which indicates limitation of operation of the camera for each user and second information which indicates whether the camera is operated by a user or not, comprising process procedure code for:

permitting a user, who is not limited from performing operation via a network by the first management information, to operate the camera and receive a current image acquired by the camera if the second management information indicates that the camera is not being operated by another user; and

prohibiting the user to operate the camera, and ~~permitting~~ permitting the user to have access to the camera for receiving a current image acquired by the camera if the second management information indicates that the camera is operated via the network by another user.

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32. (Previously Presented) The product according to claim 31, wherein the operation of the camera includes at least one of panning, tilting or zooming operation of the camera.

33. (Previously Presented) The procedure according to claim 31, wherein the first management information includes a range of the operation of the camera for each user.

34. (Previously Presented) The procedure according to claim 31, wherein the first management information can be set in a unit of groups including plural users.

35. (New) A control apparatus for controlling a camera connected to said apparatus, comprising:

a controller, arranged to control an action of the camera based on a received signal which requires an operation of the camera; and

a memory, arranged to store first management information which indicates limitation of operation of the camera for each user and second management information which indicates whether the camera is operated by a user or not,

wherein said controller permits a user, who is not limited from performing operation via a network by the first management information, to operate the camera and receive a current image acquired by the camera if the second management information indicates that the camera is not being operated by another use, and

said controller prohibits the user to operate the camera, and permits the user to have access to the camera for receiving a current image acquired by the camera if the second management information indicates that the camera is operated via the network by another user.

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36. The apparatus according to claim 35, wherein the operation of the camera includes at least one of panning, tilting and zooming operation of the camera.

37. (New) The apparatus according to claim 35, wherein the first management information includes a range of the operation of the camera for each user.

38. (New) The apparatus according to claim 35, wherein the first management information can be set in a unit of group including plural users.

39. (New) A control method of controlling a camera based on first management information which indicates limitation of operation of the camera for each user and second management information which indicates whether the camera is operated by a user or not, comprising the steps of:

permitting a user, who is not limited from performing operation via a network by the first management information, to operate the camera and receive a current image acquired by the camera if the second management information indicates that the camera is not being operated by another user; and

prohibiting the user to operate the camera, and permitting the user to have access to the camera for receiving a current image acquired by the camera if the second management information indicates that the camera is operated via the network by another user.

40. (New) The method according to claim 39, wherein the operation of the camera includes at least one of panning, tilting and zooming operation of the camera.

41. (New) The method according to claim 39, wherein the first management information includes a range of the operation of the camera for each user.

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42. (New) The method according to claim 39, wherein the first management information can be set in a unit of group including plural users.

43. (New) A computer program product stored on a computer readable medium comprising computer program code, for a control method of controlling a camera based on first management information which indicates limitation of operation of the camera for each user and second management information which indicates whether the camera is operated by a user or not, said method comprising the steps of:

permitting a user, who is not limited from performing operation via a network by the first management information, to operate the camera and to receive a current image acquired by the camera if the second management information indicates that the camera is not being operated by another user; and

prohibiting the user to operate the camera, and permitting the user to have access to the camera for receiving a current image acquired by the camera if the second management information indicates that the camera is operated via the network by another user.

44. (New) The product according to claim 43, wherein the operation of the camera includes at least one of panning, tilting and zooming operation of the camera.

45. (New) The procedure according to claim 43, wherein the first management information includes a range of the operation of the camera for each user.

46. (New) The procedure according to claim 43, wherein the first management information can be set in a unit of group including plural users.